

Notice of Allowability

Application No.

10/673,013

Examiner

Que T. Le

Applicant(s)

PARK ET AL.

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 1-11.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date ____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____


Que T. Le
Primary Examiner

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

In claim 7, on line 13, "upper and lower phase films" has been changed to "upper substrate and the lower film"; and on line 34, "and" has been changed to ", wherein".

The following is an examiner's statement of reasons for allowance: The prior art fails to teach a semi-transmission type liquid crystal display device, among other features, comprising a lower substrate with a reflection electrode and a lower orientation film; an upper substrate with a color filter and an upper orientation film; a liquid crystal layer interposed between the upper and lower substrates; upper and lower phase films for transforming linearly polarized light into circularly polarized light; upper and lower polarization plates for transforming natural light from outside into linearly polarized light; a reflection-type liquid crystal display area; and a transmission-type liquid crystal display area located between the upper and lower substrates with no reflection electrode wherein the device includes performances of a transmission-type liquid crystal display element while maintaining the function of a reflection-type liquid crystal display element as recited in claims 1-6. The prior art also fails to teach a semi-transmission type liquid crystal display device, among other features, comprising: a lower substrate with a reflection electrode and a lower orientation film; an upper substrate with a color filter and an upper orientation film; a liquid crystal layer interposed between the upper and lower substrates; a lower phase film positioned on the outer surface of the lower

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substrate for transforming linearly polarized light into circular polarized light; upper and lower polarization plates for transforming natural light from outside into linearly polarized light; a reflection-type liquid crystal display area; and a transmission-type liquid crystal display area positioned between the upper and power substrates with no reflection electrode, wherein the upper substrate is a glass substrate having a function of a $\lambda/4$ phase compensation and exhibiting circularly polarized light at 550 nm, and wherein the device capable of performing function of a transmission-type liquid crystal display element while maintaining the function of a reflection-type liquid crystal display element as recited in claims 7-11.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Kubo et al 6,295,109 disclose a liquid crystal display device having a plurality of polarization plates.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Que T. Le whose telephone number is (571) 272-2438.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta, can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read 'Que T. Le', with a stylized flourish at the end.

Que T. Le

Primary Examiner